Summary of Fishery Surveys
Devils Creek Trout Pond, Rusk County, 2016

WDNR's Fisheries Management Team from Park Falls completed angling and gillnetting surveys in July 2016 to evaluate the longstanding trout stocking program in Devils Creek Trout Pond. The pond is locally known by this name, but officially listed in WDNR's *Registry of Waterbodies* as an "unnamed lake or pond in T35N-R8W-S17" with Waterbody Identification Code (WBIC) 3000632.

Survey Effort

On July 7th, 2016 we set four variable mesh gillnets in the deepest portions of the pond and fished them for 3.5 hours (14 gillnet-hours). All gillnets were 150 feet long. Three nets had two 75-foot panels and one had three 50-foot panels. Mesh size of each panel ranged from 0.75-inch bar to 3.25-inch bar. We periodically checked the nets to minimize fish mortality.

To optimize our sampling effort on the same day we also fished when we were not tending gillnets. Beginning at noon, two experienced anglers fished from a small boat on Devils Creek Trout Pond for 1.5 hours (3.0 hours of angling effort) focused on catching trout and all other fish that would bite. They used spinning tackle and small spoons and spinners with painted and metallic finishes. All fish landed were measured and released.

Habitat Characteristics

Devils Creek Trout Pond is a 2-acre impoundment formed by a 3.5-foot dam that discharges to Devils Creek. The pond is located entirely within the Rusk County Forest immediately adjacent to Fire Lane Road about 7 miles northwest of Bruce, WI and less than a mile from WDNR's Devils Creek Fishery Area. The soft water, clear water lake appears to be more of an impoundment on a coldwater tributary to Devils Creek, rather than a true spring pond, though groundwater may also discharge within its basin. A June 1939 aerial photograph showed a much smaller pond or spring before the dam was built. Maximum depth was 5 feet, pH was neutral, specific conductance was 62 micromhos @ 70°F, and methyl purple alkalinity was 31 mg/l as $CaCO_3$ in May 1968. In our survey surface and bottom water temperatures (70.7°F and 62.6°F) were identical near the pond's inlet and outlet—suitably cold for trout survival in early summer.

WDNR stocked brook trout and rainbow trout as fingerlings in 1956-1962 and brook, brown, or rainbow trout as yearlings in most years since 1974. Currently, Devils Creek Trout Pond annually receives about

100 yearling rainbow trout (Erwin strain) averaging 9 inches long for put-and-take harvest. The survey purpose was to coarsely determine whether continued stocking is worthwhile.

Summary of Results

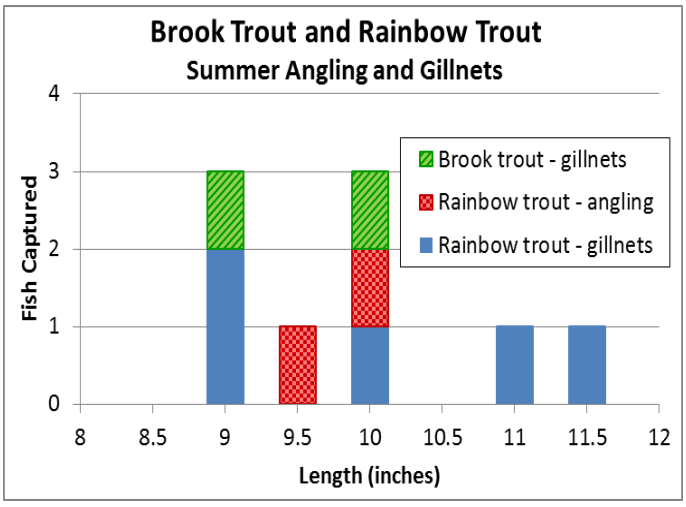
Gillnets captured 82 fish of eight species, two of which were also caught by hook and line in slow fishing action. Most trout were captured in the gillnet panels with 2-inch bar mesh size, and three died from entanglement. Trout were captured throughout pond, not just in a specific location, affirming that the favorable thermal conditions we measured allow trout to disperse and occupy many niches, rather than remain concentrated near the colder spring seeps.

Our combined samples included both stocked rainbow trout and native brook trout. Though stocking records are known to be imperfect, 2001 was the most recent year we could find when brook trout were planted into Devils Creek Trout Pond with authorization. Considering that brook trout rarely live longer than 6 or 7 years in inland waters, those we encountered must have originated from a reproducing population in the pond or its tributary, as migrants from the self-sustaining population in Devils Creek immediately adjacent to the pond, or from unlawful introduction. We do know whether flooding sometimes forms a temporary surface water connection and an avenue for fish movement between Devils Creek and Devils Creek Trout Pond.

Our cursory investigation indicates that stocked rainbow trout are surviving and catchable in Devils Creek Trout Pond, providing recreational fishing opportunity into early July and probably longer. Adult brook trout produced naturally offer angling diversity at no additional cost. Brook trout have a narrower range of thermal tolerance than rainbow trout, and the presence of brook trout in our samples points toward water quality satisfactory for year to year survival and growth of both species. We noticed that two of seven rainbow trout were 2–2.5 inches longer than the average length of the 100-fish batch stocked on April 5, 2016—an increment not likely gained in 93 days at large with natural food, but certainly plausible over a 15-month period. With our choice of sampling gear, we did not expect to find any sign of natural recruitment of either species. Rainbow trout seldom reproduce successfully in inland waters.

Rainbow Trout and Brook Trout

	Angling	Gillnets
Brook trout	--	2
Rainbow trout	2	5
Creek chub	6	14
Golden shiner	--	37
Common shiner	--	3
White sucker	--	16
Fathead minnow	--	1
Black bullhead	--	4



Illustrations by Virgil Beck

Though our surveys cannot quantify the angling return from our stocking investment, we did find subtle indications of people fishing and utilizing their catch in Devils Creek Trout Pond, including bobbers snagged in trees, discarded bait and drink containers, and several worn footpaths to the water's edge. Gillnets and angling captured only about 5% of the rainbow trout stocked in 2016, suggesting that anglers already harvested most of them in the first two month of the fishing season as we hoped they would. High proportions of stocked fish captured by survey gear would have generally pointed toward low utilization and a poor investment return.

With unimproved but adequate shorefishing access and plenty of fishable water right along the road frontage, we believe stocking about 100 rainbow trout annually into Devils Creek Trout Pond seems to be a worthwhile investment that should continue to provide put-and-take angling opportunity. Rainbow trout are quite hardy and relatively easy to catch, offering an excellent chance to recruit new anglers and teach them basic fishing skills. Stocking rates should be periodically reviewed and adjusted to follow increasing and decreasing trends in trout fishing popularity.

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